Remarks/Arguments:

Claims 1-3 and 5-18 are presently pending. Reconsideration is respectfully requested in view of the following remarks.

Claim Rejections Under 35 U.S.C. 103

Claims 1-3 and 5-18 stand rejected under 35 U.S.C. § 103(a) as unpatentable over Kojima et al. (US Pat. Pub. 2004/0191094) in view of either Sasaki et al. (US Pat. 6,727,627) or Shafer et al. (US Pat. 7,183,683). It is respectfully submitted, however, that the claims are patentable over the art of record for the reasons set forth below.

Regarding the combination of Kojima and Shafer, Applicants note that the Shafer reference has a filing date of June 23, 2005. Applicants submit herewith a verified English translation of JP 2004-338443, to which priority is claimed in the present application. Applicants note that JP 2004-338443 has a priority date of November 24, 2004. Applicants further note that support for the claimed features can be found in JP 2004-338443 at paragraph [0039]. Accordingly, Applicants' invention predates Shafer, and Applicants respectfully request that the rejection in view of Shafer be withdrawn.

Regarding the combination of Kojima and Sasaki, Applicants' invention, as recited by claim 1, includes a feature which is neither disclosed nor suggested by either Kojima or Sasaki,, namely:

> ...a built-in permanent magnet in the rotor core, an axial length of the permanent magnet being less than the axial length of the rotor core...
>
> a hollow bore extends from a top end...and the permanent magnet is positioned in the rotor core so that it extends from a bottom end opposite the top end of the rotor core.

This means that the permanent magnet is axially shorter than the rotor core. The permanent magnet is positioned in the rotor core so that it extends from the end opposite the bore. This feature is found in the originally filed application at page 13, lines 4-17, and FIG. 4. No new matter has been added.

Kojima is directed to an electric compressor which includes a motor. As shown in FIG. 3, for example, Kojima discloses a motor including a rotor 314. Rotor 314 includes a rotor core 315 having a permanent magnet 315a. The rotor core 315 includes a bore 306 located at the top axial end.

Sasaki is directed to a permanent magnet synchronous motor. As shown in FIG. 14, for example, the motor includes a rotor 41 including a rotor core 42 and a permanent magnet 45 in the rotor core 42. In the embodiment shown in FIG. 18, the permanent magnet 45 does not extend from either side R or S of the rotor core 42.

Kojima discloses that permanent magnet 315a is positioned in the middle of rotor core 315, and does not extend from either end of rotor core 315. See FIG. 3 of Kojima. Kojima fails to disclose, teach, or suggest a magnet shorter than the length of the rotor core that extends from a side opposite a bore in the rotor core. Sasaki discloses permanent magnet 45 extending substantially the length of rotor core 42. Sasaki fails to disclose, teach, or suggest rotor core 42 including a bore; thus, Sasaki must also fail to disclose, teach, or suggest a magnet shorter than the length of the rotor core that extends from a side opposite a bore in the rotor core.

Applicants respectfully submit that one of ordinary skill in the art who combines the magnet 45 of Sasaki with the rotor core 315 of Kojima would not achieve the magnet and rotor core recited in the present invention. Instead, Applicants submit that the combination of Kojima and Sasaki would result in a rotor core having a magnet positioned in the middle of the rotor core, as illustrated in FIG. 3 of Kojima. This is because neither Kojima nor Sasaki discloses, teaches, or suggests positioning the permanent magnet such that it extends from the end of the rotor core opposite the bore. Solely Applicants' disclosure teaches positioning the permanent magnet such that it extends from an opposite side of the bore. Accordingly, Applicants respectfully submit that Kojima in view of Sasaki fails to disclose, teach, or suggest "a built-in permanent magnet in the rotor core, an axial length of the permanent magnet being less than the axial length of the rotor core...a hollow bore extends from a top end...and the permanent magnet is positioned in the rotor core so that it extends from a bottom end opposite the top end of the rotor core," as recited in claim 1.

It is because Applicants include the features of the permanent magnet being positioned in the rotor core so that it extends from an end opposite the bore in the rotor core that the following advantages are achieved. This configuration allows the overlap between the

permanent magnet, which extends from the bottom end, and the hollow bore, which extends from the top end, to be minimized. "In this configuration, the magnetic flux by permanent magnet 205 occurs in the large part having no bore 212 in rotor core 203, so that a magnetic path wider than the size of permanent magnet 205 can be formed, the material cost of permanent magnet 205 can be reduced without largely reducing the effective magnetic flux amount of permanent magnet 205. Therefore, the efficiency is increased and simultaneously the cost is reduced." See Applicants' specification at page 15, lines 7-12. In contrast, the configuration disclosed by Kojima does not consider minimizing the overlap between the magnet and the hollow bore. Further, Sasaki fails even to disclose a hollow bore in the rotor core.

Accordingly, for the reasons set forth above, claim 1 is patentable over the art of record.

Claims 2, 3 and 5-18 include all features of claim 1 from which they depend. Thus, claims 2, 3 and 5-18 are also patentable over the art of record for the reasons set forth above.

In view of the amendments and arguments set forth above, the above-identified application is in condition for allowance which action is respectfully requested.

Respectfully submitted,

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Enclosure: Verified Translation of 2004-338443

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